NATIONAL NUCLEAR AND RADIOACTIVE MATERIAL SECURITY REGIME IN GHANA

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An evaluation of the National Nuclear and Radioactive Material Security Regime in Ghana has been done. Ghana has the Nuclear Regulatory Authority (NRA) as the statutory mandatory regulator for the sustenance of an effective nuclear and radioactive material security regime. The NRA and other radiological related service providers such as the Ghana Atomic Energy Commission (GAEC) adopts international standards to support the drafting and implementation of the regulations which is rooted in the national legislative documents. The evaluation was conducted by considering factors such as the adaptation and implementation of regulations that guide emergency measures, national management plans, the detection and response to illegal trafficking, control and accounting, physical protection systems and information security. The major mode of national leverage on security considerations is by conclusions based on the design basis threat (DBT). The DBT is fed with updates from threat assessment, vulnerability assessment and consequence analysis, whose product indicates the degree of risk that the various facilities that undertake peaceful nuclear technological applications pose to the nation.

The National Security Council (NSC) coordinates the affairs of the Nuclear Security Committee which has representatives from all stakeholders who spearhead responsibilities in ensuring the safety and security of the public, the environment and various occupationally exposed persons as well within the nuclear facilities and activities. The Nuclear Security Committee which is also ably represented, has been able to ensure that there is an independent regulatory structure that supervises the activities and facilities of the various nuclear and radiological applications. Such regulatory structure in cooperation with other relevant stakeholders have been able to establish various technical projects such as: (a) Development of infrastructure for radiation protection, medical and public exposure control, environmental radiation protection, secondary standards dosimetry, transport and waste safety and security; (b) Application of nuclear science and technology in human health, agriculture, non-destructive testing, radiation processing, nuclear agriculture, water resources management, oil and gas industry and research and teaching. In all these applications, adequate, systematic and sustainable education and training especially of those who are occupationally exposed is key to maintaining a sustainable radiation protection programme, safety culture and security culture commensurate with the hazards posed by the varied and complex nuclear technologies introduced and evolving over the years for socio-economic development of Ghana. Such policy has yielded the development and update of policy documents such as: (i) National Policy and Strategy for Education and Training in Radiation, Transport and Waste Safety and Security. (ii) National Nuclear and Radiological Emergency Response Plan, drafted by the National Disaster Management Organisation (NADMO) and the Ghana Atomic Energy Commission (GAEC). The National management plan that has been instituted is to ensure that there is effective international cooperation in information security through channels such as the Regulatory Authority Information System (RAIS).